

## CLAY DRAIN TILE FIELD SECTION 1031

**1031.1 Scope.** To establish procedures for the inspection, acceptance, and reporting of clay drain tile.

## 1031.2 Apparatus.

- (a) Rule with suitable graduations to accurately measure the material to be inspected.
- (b) OK MoDOT stamp.
- (c) Weather resistant marking materials.
- **1031.3 Procedure.** All requirements for clay drain tile are specified in AASHTO M179. The bases of acceptance are measurement and visual examination of the finished tile; three-edge bearing test; and absorption. Absorption may be waived provided the tile meets a freeze-thaw test as specified in AASHTO M179. If a small quantity of a size and class of tile is required for a project and tests have not been observed, the tile may be accepted by manufacturer's certification to AASHTO M179. This method of acceptance is only to be used until observation of tests can be arranged.
- **1031.3.1** Random measurements are to be made of the diameter, length, and wall thickness. Visual examination of clay drain tile is to be performed on each piece offered for use on Department projects. As the tile are inspected, each accepted piece is to be marked with an "OK-MoDOT" stamp and each rejected piece is to be marked with a single line using a weather resistance marking material on the outside, near one end of the tile. Visual examination and marking may be performed either at the source or at destination.
- **1031.3.2** Three-edge bearing tests shall be observed on each size and class of pipe furnished for Department projects. Samples shall be selected and prepared for testing in accordance with AASHTO M179. The tests are to be performed in accordance with AASHTO T281 and at a frequency of approximately every two years or as deemed necessary.
- **1031.3.3** Absorption samples are to be taken from tile broken in three-edge bearing and submitted to the Laboratory for testing. Size of sample shall be as specified in AASHTO T281. Form T-617 is to be used as an identification sheet when submitting samples to the Laboratory.
- **1031.4 Report.** The report is to indicate acceptance, qualified acceptance, or rejection. Appropriate remarks, as described in General Sec 7.1.2 of this Manual, are to be included in the report to clarify conditions of acceptance or rejection.
- 1031.4.1 Three-edge bearing tests are to be reported on a form similar to Exhibit 1030-A, Field Sec 1030 of this Manual. The District shall provide its own Forms. Distribution of the form is to be as follows:

Division Engineer, Materials Operations Engineer.



1031.4.2 All tile inspected shall be reported on Form T-634. Acceptance reports shall contain a statement under the Test Results section of the report such as "Three-edge bearing and absorption test results on file in District Operations Office", or "Accepted on the basis of attached manufacturer's certification". Rejection reports shall contain a brief explanation of causes of rejection.

Distribution of acceptance reports is to be as follows: Division Engineer, Materials Operations Engineer (receiving and inspecting District); Resident Engineer.

Distribution of rejection reports is to be as follows: Division Engineer, Materials Operations Engineer (inspecting District).

Distribution of reports for materials purchased under a Department purchase order is to be as described in Field Sec 2001 of this Manual.